

A diagram of a dumbbell-shaped cross-section. It features a central horizontal line with arrows at both ends, labeled **B**. A vertical line with arrows at both ends passes through the center, labeled **A**. A horizontal line segment with arrows at both ends, perpendicular to the vertical line, is labeled **C**. The number 20 is written to the right of the upper bulb, and the number 30 is written to the right of the central neck.

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The circuit diagram shows a differential amplifier with a resistor mismatch. It consists of two input transistors, Q1 and Q2, whose sources are connected to a common source node. This node is connected to ground through a resistor R7 and a resistor R8 in series. A resistor R6 is connected between the source of Q2 and ground. The gates of Q1 and Q2 are connected to a common gate node. This node is connected to a bias voltage $+V$ through a resistor R5 and to a common source node through a resistor R4. A resistor R3 is connected between the gate node and the source of Q1. A resistor R2 is connected between the gate node and the source of Q2. A resistor R1 is connected between the gate node and the source of Q3. The output voltage V_{out} is taken from the drain of Q2. The circuit is powered by $+V$ and $-V$. A label '22' with an arrow points to the circuit.

Figure 2

Figure 1 consists of 11 sub-graphs labeled (a) through (k), each showing the growth of *E. coli* O157:H7 in ground beef under different treatment conditions. The y-axis for all graphs is \log_{10} CFU/g, ranging from 0 to 10. The x-axis is time in hours, ranging from 0 to 24. The graphs show various growth curves, with some treatments showing significant inhibition of growth compared to the control.

- (a) Control: Shows a typical growth curve, starting at \log_{10} CFU/g = 0 and reaching approximately 10 by 24 hours.
- (b) Control: Shows a typical growth curve, starting at \log_{10} CFU/g = 0 and reaching approximately 10 by 24 hours.
- (c) Control: Shows a typical growth curve, starting at \log_{10} CFU/g = 0 and reaching approximately 10 by 24 hours.
- (d) Control: Shows a typical growth curve, starting at \log_{10} CFU/g = 0 and reaching approximately 10 by 24 hours.
- (e) Control: Shows a typical growth curve, starting at \log_{10} CFU/g = 0 and reaching approximately 10 by 24 hours.
- (f) Control: Shows a typical growth curve, starting at \log_{10} CFU/g = 0 and reaching approximately 10 by 24 hours.
- (g) Control: Shows a typical growth curve, starting at \log_{10} CFU/g = 0 and reaching approximately 10 by 24 hours.
- (h) Control: Shows a typical growth curve, starting at \log_{10} CFU/g = 0 and reaching approximately 10 by 24 hours.
- (i) Control: Shows a typical growth curve, starting at \log_{10} CFU/g = 0 and reaching approximately 10 by 24 hours.
- (j) Control: Shows a typical growth curve, starting at \log_{10} CFU/g = 0 and reaching approximately 10 by 24 hours.
- (k) Control: Shows a typical growth curve, starting at \log_{10} CFU/g = 0 and reaching approximately 10 by 24 hours.

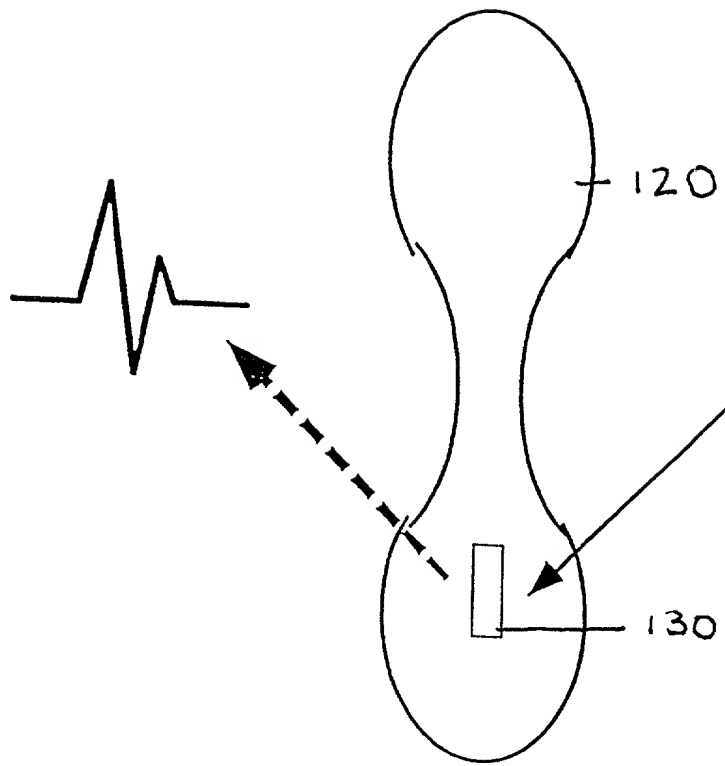


Figure 3

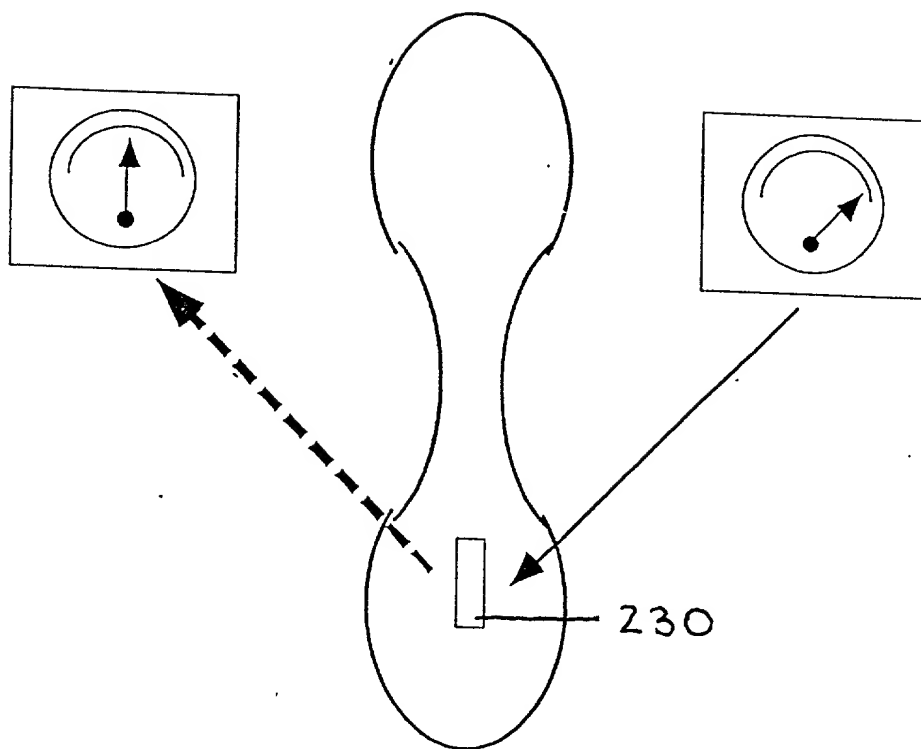
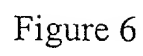


Figure 4



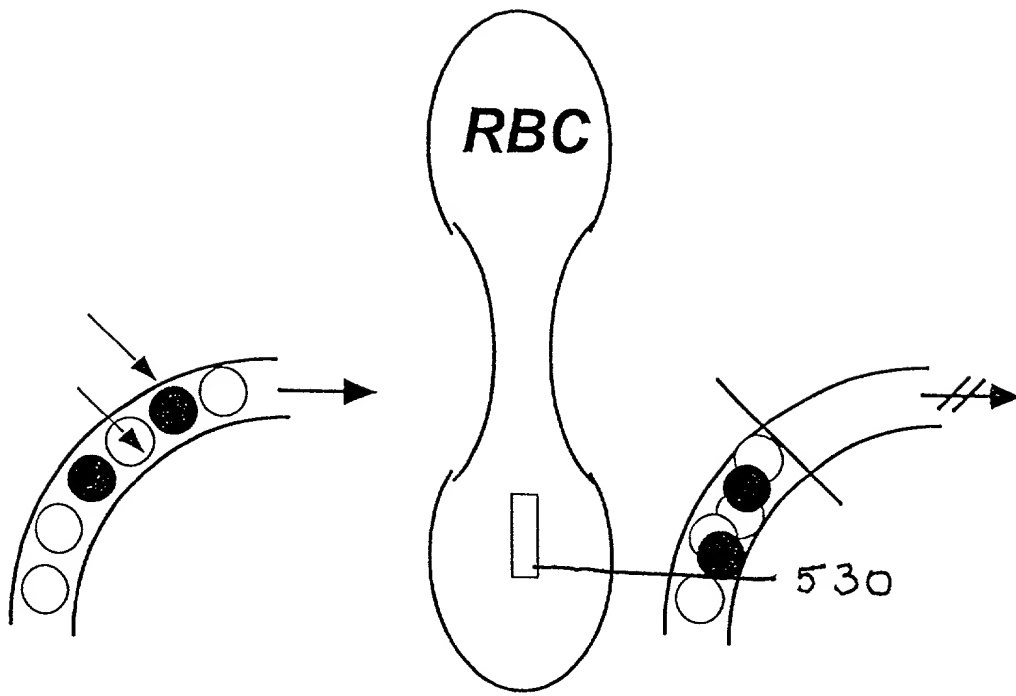


Figure 7

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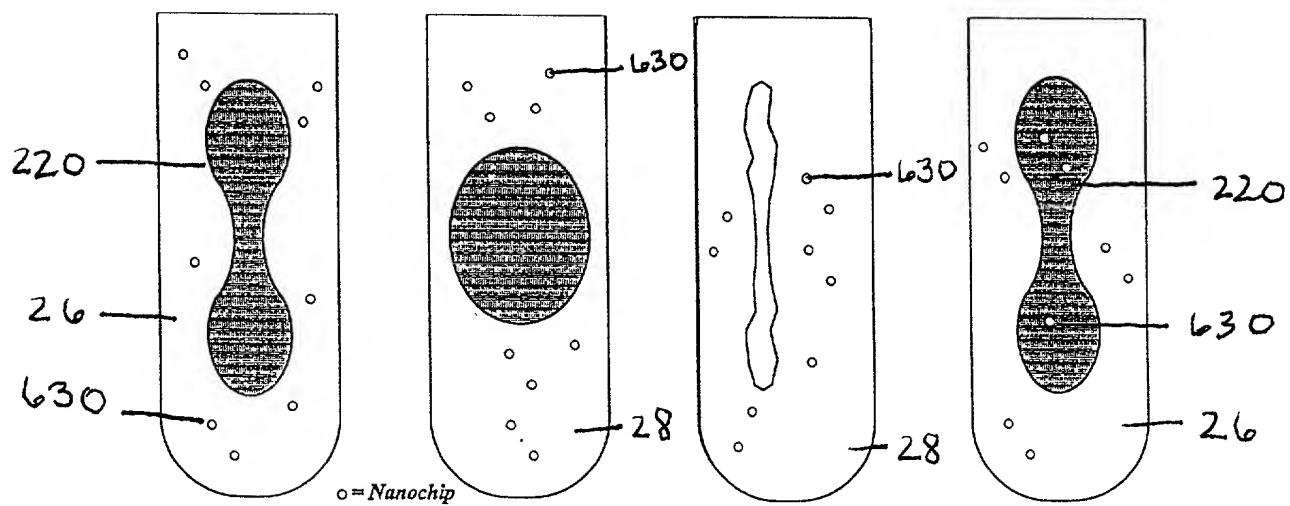


Figure 8

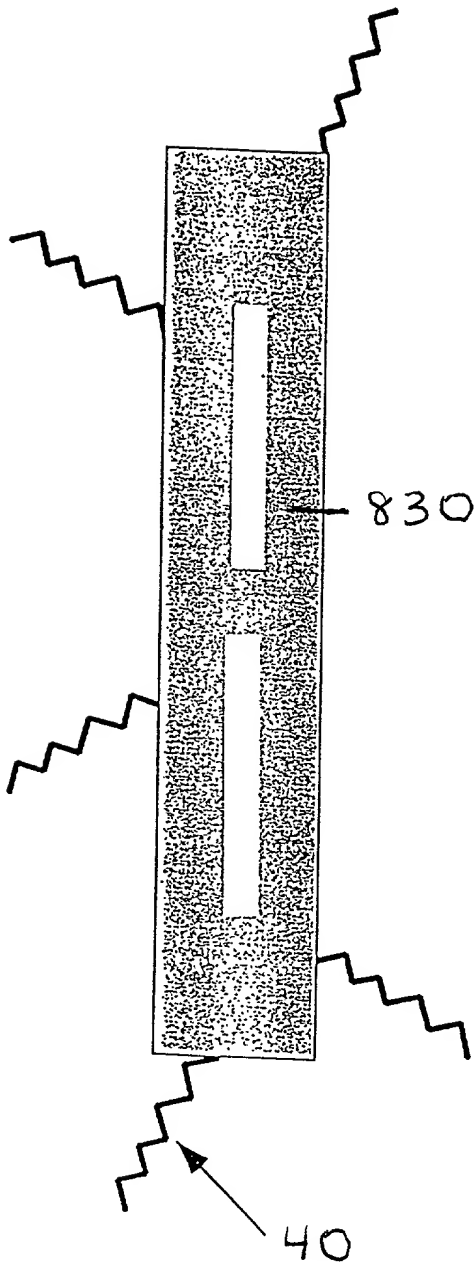


Figure 11